Dr. Arun.V
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PhD and Postdoc positions are available

Personal Profile:

Dr. Arun V completed his undergraduate degree in Biochemistry (1998) and post-graduate degree in Molecular Biology (2000) from University of Madras. He obtained CSIR-NET fellowship (JRF-Lecturship) in the year 2000 and joined SPIC Science Foundation and completed his Ph.D under the guidance of Dr. George Thomas from University of Madras in 2007. He joined Sri Ramachandra Institute of Higher Education and Research in 2008 as Assistant Professor in the Department of Biotechnology. Since then he is involved in teaching various courses that include genetic engineering, molecular biology, plant biotechnology among others. He is an active member of Institute Innovation Council, SPT Endowment Oration Committee, CBCS Coordinator for the Department. He has served as reviewer for journals such as 3Biotech, Journal of Virological Methods, Gene.
He has one patent awarded and one under process for the development of a visual detection method for plant viral diagnostics (BBTV and Begomoviruses).
He has completed one project as Co-PI in collaboration with Bharathiar University.

Research Interests

I. PLANT TISSUE CULTURE:

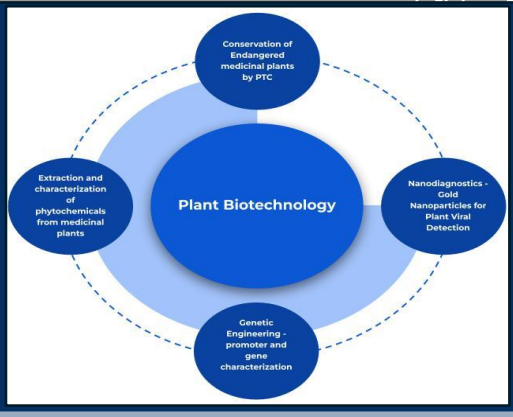
•Conservation of endangered plants is one of the thrust areas of our lab, where we employ tissue culture methods to revive these plants and once multiple plants are obtained could be restored in natural habitats.
•Establishment of tissue culture methods allows rapid multiplication of the plant material and we are also working on the isolation and characterization of secondary metabolites from them.
•We are exploring the role of cold plasma treatment in plant survival, regeneration and multiplication

II. GENETIC ENGINEERING:

•Isolation and characterization of novel promoters from medicinal plants for application in genetic engineering
•DNA Barcoding of medicinal plants allows identification and characterization of closely related plant species

III. NANO-DIAGNOSTICS:

•Development of simple, visual detection method for plant viral detection using functionalized gold nanoparticles - have successfully demonstrated for BBTV (patent awarded) and chilli leaf curl virus (patent filed)



LAB MEMBERS

CURRENT:

Ms. Lavanya B. : Development of a visual detection method for the identification of begomovirus diseases in *Abelmoschus esculentus*

Mrs. Steffi selvaranie E. : Isolation, expression and functional characterization of *cyp* gene from *Coleus aromaticus* Benth

Ms. Janani K. : *In vitro* propagation of Commiphora species (Guggul) and production of Guggulsterone

Ms. Janani M. : Studies on *in vitro* propagation of endangered Cinnamomum wightii and antimicrobial activity of its therapeutic compounds

Ms. Sangamithra B. : Detection of begomovirus using functionalized gold nanoparticles in *Capsicum annum* and *Carica papaya*

PAST:

Mrs. Lavanya R.: Development of a visual detection method for begomoviral detection in chilli and tomato plants (1 patent has been filed)
Mrs. Evangelene Christy S.M. : Cloning and characterization of three constitutive promoters from *plectranthus amboinicus* (Lour.) Spreng (Awaiting Viva Voce)
Mrs. Kalaivani D. : Anti-melanoma and Anti-melanogenic activity of Isorhamnetin isolated from *Acalypha indice* (Awaiting Viva Voce)

Ph.D, Post-doc and internship opportunities in Genetic engineering and Plant Biotechnology are available.

PUBLICATIONS:

1. Mallur, D. J., Lavanya, B., Temkar, S. S., Arun, V., & Paul, B. C. (2024). Exploring okra-derived compounds as prospective aromatase inhibitors: a computational study for enhanced breast cancer therapy. Journal of Biomolecular Structure and Dynamics, 1–9. https://doi.org/10.1080/07391102.2024.2335301. Impact Factor - 4.4
2. Evangelene Christy, S.M., Arun, V. Isolation of actin regulatory region from medicinal plants by thermal asymmetric interlaced PCR (TAIL PCR) and its bioinformatic analysis. Braz. J. Bot (2024). https://doi.org/10.1007/s40415-023-00971-z Impact Factor - 1.6
3. Velusamy P, Su CH, Ramasamy P, Arun V, Rajnish N, Raman P, Baskaralingam V, Senthil Kumar SM, Gopinath SC. Volatile organic compounds as potential biomarkers for noninvasive disease detection by nanosensors: A comprehensive review. Critical Reviews in Analytical Chemistry. 2023 Nov 17;53(8):1828-39.
4. SM Evangelene Christy, and V Arun. Isolation, cloning, and functional analysis of a putative constitutive promoter of E3 ubiquitin-protein ligase RF4 from Coleus amboinicus Lour. Biotechnology and Applied Biochemistry. First published: 05 August 2022 (2022) https://doi.org/10.1002/bab.2395. Impact factor - 2.724
5. Lavanya R, Arun V. Detection of Begomovirus in chilli and tomato plants using functionalized gold nanoparticles. Scientific Reports. 2021 Jul 9;11(1):14203.